# GENOMIC SIGNATURE TAGS

#### Inventors

John J. Dunn

Daniel van der Lelie

Maureen Krause

Sean McCorkle

#### License Status

Available for Licensing

- Non-Exclusive
- Exclusive

#### Patent Status

U.S. Patent 7,323,306

### Brookhaven National Laboratory

Christine Brakel
Office of Intellectual
Property and
Sponsored Research

PO Box 5000 Building 185 Upton, NY 11973-5000

Phone: (631) 344-7134

Fax: (631) 344-3729

> Email address: brakel@bnl.gov

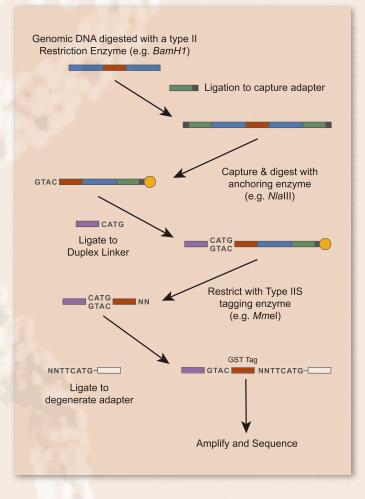
### TECHNOLOGY

Describes a method of generating short genomic signature tags (GST) that can be sequenced to identify and quantify genomic DNAs.

### APPLICATIONS



The technology can be used for profiling DNA genomes in natural populations for a variety of purposes including assessing microbes in



environmental samples, biological samples, including biofilms and potential bioterror weapons. Specific variants of the technology include analysis of methylation changes within CpG islands related to pathogenic conditions such as cancer and methods for sorting out regulatory networks.

## COMPETITIVE ADVANTAGE

The method provides a fast, simple and an economical approach of genome-wide fingerprinting of chromosomal and episomal DNAs.

**Reference:** Genomic signature tags (GSTs): A new system for profiling genomic DNA. Dunn J.J., McCorkle S.R., Praissman L.A., Hind G., van der Lelie D., Bahou W.F., Gnatenko D.V. and Krause M. Genome Research. 12, 1756-1765 (2002).



Brookhaven National Laboratory is a multi-program national laboratory operated by Brookhaven Science Associates for the U.S. Department of Energy.